

performing a display operation by displaying information;

controlling the display operation by forming a fixed display when an amount of information to be displayed is not greater than a number of lines displayable in one frame, informing a user when said information exceeds the number of lines displayable on a display unit in one frame, and automatically forming a vertical scrolling display a plurality of times continuously when an amount of information to be displayed exceeds a number of lines displayable on said display unit in one frame, the operation of automatically forming a scrolling display being provided without manual operation of a user, the scrolling display incrementally displaying one or more rows of dots sufficient to display a font; and designating the display operation.

G3
cont.

REMARKS

Claims 1-3 and 5-33 are pending in this application. By this Amendment, claims 1, 3 and 29-32 are amended for reasons of patentability. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

Applicant appreciates the courtesies extended to Applicant's representative during the March 26 personal interview with Examiner Chung. The points discussed are incorporated in the following remarks.

Claims 1-33 stand rejected under 35 U.S.C. §103(a) over Kawasaki (U.S. Patent No. 4,246,578) in view of Ying (U.S. Patent No. 4,057,849) and further in view of Rossmann (U.S. Patent No. 6,147,670). Applicant respectfully traverses the rejection.

In particular, none of the applied references, disclose or suggest an information display apparatus including at least means for informing a user when the information to be

displayed exceeds the number of lines displayable as the display unit in one frame, as recited in independent claim 1, and similarly recited in independent claims 3 and 29-32.

Kawasaki instead describes a patent generation display system of a CRT, where the width of a font varies according to the type of character displayed. However, Kawasaki does not disclose anything about scrolling.

Furthermore, Ying describes a text editing system of a CRT, where a display controller blanks a character position in the line following the position of a word-ending or word-break word so that the next display line begins with this character.

Rossmann discloses a structured screen display process that presents structured information that includes a plurality of elements on any width screen display so that the user is able to see as many of the elements as possible at once, and is able to see the complete text of any element as needed.

However, neither Kawasaki, Ying nor Rossmann, individually or combined, disclose or suggest means for informing a user when the information to be displayed exceeds the number of lines displayable on the display unit in one frame.

At least for the reasons as stated in the Amendment filed on March 3, 2003, as well as those stated above, Applicant respectfully submits that claims 1-3 and 5-33 define patentable subject matter. Accordingly, favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact the Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,


James A. Oliff
Registration No. 27,075

Yong S. Choi
Registration No. 43,324

JAO:YSC/cfr

Attachment:
Appendix

Date: April 18, 2003

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--

APPENDIX

Changes to Claims:

The following is a marked-up version of the amended claims:

1. (~~Four~~ Five Times Amended) An information display apparatus, comprising:
a display unit that displays information;
display control means for controlling a display operation of said display unit;

~~and~~

an operating unit that designates a display operation of said display unit, said display control means causing a new line of characters to be started wherever it would otherwise be required to break a word across two lines of a plurality of lines of characters of said information, and displaying the plurality of lines of characters of said information on said display unit in a font having a width that varies according to the type of character displayed, and

said display control means controlling the display operation of said display unit so that a spacing between the characters is constant, and said display control means causing said display unit to automatically form a vertical scrolling display a plurality of times continuously when an amount of information to be displayed exceeds a number of lines displayable on said display unit in one frame, the scrolling display incrementally displaying one or more rows of dots sufficient to display the font; and

means for informing to a user when said information to be displayed exceeds the number of lines displayable on said display unit in one frame.

3. (~~Twice~~ Three Times Amended) An information display apparatus,
comprising:

a display unit that displays information;

display control means for controlling a display operation of said display unit;

~~and~~

an operating unit that designates a display operation of said display unit, said display control means causing said display unit to form a fixed display when an amount of information to be displayed is not greater than a number of lines displayable on said display unit in one frame, and

said display control means causing said display unit to automatically form a vertical scrolling display when an amount of information to be displayed exceeds a number of lines displayable on said display unit in one frame, the operation of automatically forming a scrolling display a plurality of times continuously being provided by virtue of automatic operation of the display control means and operating unit without manual operation of a user, the scrolling display incrementally displaying one or more rows of dots sufficient to display a font; and

means for informing to a user when said information to be displayed exceeds the number of lines displayable on said display unit in one frame.

29. (~~Three~~ Four Times Amended) An information display apparatus, comprising:

a display unit that displays information;

a display control device that controls a display operation of said display unit;

~~and~~

an operating unit that designates a display operation of said display unit, said display control device causing a new line of characters to be started wherever it would otherwise be required to break the word across two lines of a plurality of lines of characters of said information, and displaying the plurality of lines of characters of said information on said display unit in a font having a width that varies according to the type of character displayed, and

said display control device controlling the display operation of said display unit so that a spacing between the characters is constant, and said display control means causing said display unit to automatically form a vertical scrolling display a plurality of times continuously when an amount of information to be displayed exceeds a number of lines displayable on said display unit in one frame, the scrolling display incrementally displaying one or more rows of dots sufficient to display the font; and

informing unit that informs a user when said information to be displayed exceeds the number of lines displayable on said display unit in one frame.

30. (~~Twice~~ Three Times Amended) An information display apparatus, comprising:

a display unit that displays information;

a display control device that controls a display operation of said display unit;

~~and~~

an operating unit that designates a display operation of said display unit, said display control device causing said display unit to form a fixed display when an amount of information to be displayed is not greater than a number of lines displayable in one frame, and

said display control device causing said display unit to automatically form a vertical scrolling display a plurality of times continuously when an amount of information to be displayed exceeds a number of lines displayable on said display unit in one frame, the operation of automatically forming a scrolling display being provided without manual operation of a user, the scrolling display incrementally displaying one or more rows of dots sufficient to display a font; and

informing unit that informs a user when said information to be displayed exceeds the number of lines displayable on said display unit in one frame.

31. (~~Three~~Four Times Amended) An information display method, comprising:
performing a display operation by displaying information;
controlling the display operation by starting a new line of characters wherever it would otherwise be required to break the word across two lines of a plurality of lines of characters of said information, displaying the plurality of lines of characters of said information in a font having a width that varies according to the type of character displayed, controlling the display operation so that a spacing between the characters is constant, informing a user when said information exceeds the number of lines displayable on a display unit in one frame and controlling the display operation by automatically forming a vertical scrolling display a plurality of times continuously when an amount of information to be displayed exceeds a number of lines displayable on ~~a~~the display unit in one frame, the scrolling display incrementally displaying one or more rows of dots sufficient to display the font; and
designating the display operation.

32. (~~Twice~~Three Times Amended) An information display method, comprising:
performing a display operation by displaying information;
controlling the display operation by forming a fixed display when an amount of information to be displayed is not greater than a number of lines displayable in one frame, informing a user when said information exceeds the number of lines displayable on a display unit in one frame, and automatically forming a vertical scrolling display a plurality of times continuously when an amount of information to be displayed exceeds a number of lines displayable on said display unit in one frame, the operation of automatically forming a scrolling display being provided without manual operation of a user, the scrolling display incrementally displaying one or more rows of dots sufficient to display a font; and
designating the display operation.

Docket No. JAO 40854

Application No. 09/111,803